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10/056,716	01/22/2002	Sashikanth Chandrasekaran	50277-1763	2140

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EXAMINER

CHEN, TE Y

ART UNIT	PAPER NUMBER
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2171

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DATE MAILED: 07/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/056,716

Applicant(s)

CHANDRASEKARAN ET AL.

Examiner

Susan Y Chen

Art Unit

2171

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 8-15 and 23-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 16-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claims 1-30 are presented for examination.

Election/Restriction

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-7 and 16-20, drawn to database or file accessing via lock management, classified in class 707, subclass 8.
- II. Claims 8-15 and 23-30, drawn to network resource access controlling, classified in class 709, subclass 229.

During a telephone conversation with Applicant's attorney (Mr. Marcel Bingham) on 07/08/2004 a provisional election was made with traverse to prosecute the invention of group 1, claims 1-7 and 16-20. Affirmation of this election must be made by applicant in replying to this Office action. Claims 8-15 and 23-30 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Drawings

The drawings are objected to under 37 CFR 1.83(a) because they fail to show a logical flow path for each of the process determination steps, for example the step 304, 320 and 330 at Fig. 3 as described in the specification. Furthermore, the process determination step 304 should be split into two steps in order to fulfill the logical test

flow. In addition, based on the description of instant specification, Fig. 3 should be labeled as a prior art, since it discloses existing b-tree protocol used in many distributed lock management systems or database systems [e.g., Page 6, lines 10-12]. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification is object to under 35 U.S. C. § 112, first paragraph, as lacking an adequate written description.

Initially, the examiner notes the separate nature of the written description requirement as contrasted to the enablement requirement of the first paragraph of 35 U.S.C. § 112. See *in re Barker*, 559 F.2d 588, 194 USPQ 470 (C.C.P.A. 1977). The function of the written description requirement is to ensure that the inventor had possession, as of the filing date of the application here relied on, 196 USPQ 465 (C.C.P.A. 1978). The question is not merely one of literal support for the questioned claim language in the original disclosure, it is one of the disclosure of concepts. See *In re Wilder*, 736 F.2d 1516, 222 USPQ 369 (Fed. Cir. 1984) and *In re Kaslow*, 707 F.2d 1366, 217 USPQ 1089 (Fed. Cir. 1983).

It appears that the applicant has attempted to incorporate substantially a well-known b-tree split model by reference into his specification to thereby support claims to any combination or permutation of features therefrom. The fact that features are mentioned individually does not mean that the applicant has invented anything. There must be some evidence within the application filed that applicants are in possession of the claimed combinations. Incorporation by reference of a dictionary does not constitute disclosure of a novel which uses only words from that dictionary.

Similarly, without more, an unspecific reference to the b-tree model does not provide support for combining any feature, regardless of what that application may teach.

To be effective in showing possession of the invention, an incorporation of b-tree model by reference must be specific as to what portion of the model is being incorporated to constitute a semantic response to lock requests in order to reduce the ambiguous citation of the instant invention, for example see Page 17, lines 13-14.

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicants' cooperation is requested in correcting any errors of which applicants may become aware in the specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7 and 16-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 1 and 16, the use of phrase "may be" or "can" or "may not be" renders the claims as indistinct.

As to claims 2-7 and 17-22, these claims have the same defects as their base claims, hence are rejected for the same reason.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 and 16-21 are rejected as best as the examiner is able to ascertain under 35 U.S.C. 102(b) as being anticipated by Devarakonda et al. (U.S. Patent No. 5,454,108).

As to claim 1, Devarakonda et al. (hereinafter referred as Devarakonda) discloses a method of handling lock contention [e.g., Fig(s). 1-3], comprising:

1) a first requester transmitting to a lock management system a first request for a particular lock on a resource, wherein, the lock management system manages locks on resources that is granted to a plurality of process that accessing the resource [e.g., col. 2, lines 1-4];

2) receiving a message from the lock management system that indicates the first request to lock a resource is denied, wherein a blocking condition caused the denial of the first request [e.g., col. 2, lines 6-8]; wherein the message includes first data which was used by the first requester to transmitting a second request for notification that the

blocking condition should no longer cause denial of a request for a lock on the resource [e.g., col. 2, lines 8-13].

As to claim 2, except all the features recited in claim 1, Devarakonda further discloses no process of the plurality of processes holds a lock issued by the lock management system for the resource [e.g., col. 2, lines 44-46].

As to claims 3-5, except all the features recited in claim 1, Devarakonda further discloses the first requester receiving a notification and in response to receiving the notification the first requester transmitting another request to the block managements system for a particular lock on the resource via the blocking condition and a second data [e.g., col. 3, lines 53 – col. 4, lines 3, Fig. 7, and associated texts].

As to claim 6, except all the features recited in claim 1, Devarakonda further discloses:

1) a second process [e.g., the lock granularity determination block 910, Fig. 9] of the plurality of processes is performing an operation that causes the blocking condition [e.g., col. 4, lines 4-13];

2) the first data identifies another resource locked by the second process which should no longer cause denial of a request of the locked resource [e.g., the Change-Token control message, col. 4, lines 1-3; Fig. 5 and associated texts];

3) wherein the step of transmitting the second request includes transmitting a request for the lock on the other resource [e.g., Fig. 7 and associated texts].

As to claims 16-21, these claims recited the same limitations as claims 1-6 in form of computer-readable medium, hence are rejected for the same reason.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Devarakonda et al. (U.S. Patent No. 5,454,108) as applied to claims 1 and 16 above, and further in view of Hart (U.S. Patent No. 5,285,528).

As to claim 7, Devarakonda further discloses the claimed limitation that the first requester is a process of the plurality of processes [e.g., the LLM 114(1) –114(3), Fig. 1].

Devarakonda fails to teach : 1) the resource is a data block indexed by a b-tree;
2) the second process of the plurality of processes is performing a block split operation on the data block.

However, Hart discloses a lock management system comprising: 1) resources as data blocks indexed by a b-tree [e.g., Abstract, col. 6, lines 46-51; Fig. 2 and associated texts];

2) the second process of the plurality of processes is performing a block split operation on the data block [e.g., Fig. 3 and associated texts].

Therefore, with the teachings of Devarakonda and Hart in front of him/her, it would have been obvious for an ordinary skilled artisan at the time the invention was made to be motivated to modify Devarakonda's system with Hart's teachings, because by doing so, the combined system would be resolve the problems of overlapping requests via the dynamically decomposing requests into non-overlapping data segments which are then granted automatically such that a more fast searching for potential deadlocks is accomplished via the binary tree structure [see, Hart: Abstract, lines 14-20].

As to claim 22, this claim recited the same limitations as claim 7 in form of computer-readable medium, hence is rejected for the same reason.

Conclusion

To expedite the process of re-examination, the examiner requests that all future correspondences in regard to overcoming prior art rejections or other issues (e.g. 35 U.S.C. 112) set forth by the Examiner prior to the office action, that applicant should

provide and link to the most specific page and line numbers of the disclosure where best support is found (see 35 U.S.C. 132).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Bamford et al. (U.S. Patent No. 6,353,836) which discloses a method and apparatus for transferring data from the cache of one node to the cache of another node; Chan (U.S. Patent No. 6,668,295) which discloses a method and apparatus for managing access to a resource using anticipatory lock conversions in a distributed lock management system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Y Chen whose telephone number is (703) 308-1155. The examiner can normally be reached on Monday - Friday from 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on (703) 308-1436. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Susan Y Chen
Examiner
Art Unit 2171

July 8, 2004



UYEN LE
PRIMARY EXAMINER